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ABSTRACT

In the fall of 1998, Broome Community College (BCC) began the process of examining its mission in light of its re-accreditation review by the Middle States Association of Colleges and Schools. In its Self-Study Report, submitted in January 2000, the college committed itself to developing a set of core indicators that would measure how well it was doing in a number of key areas. This report card is tied to the mission statement of the college and is organized around the following major topics: (1) access to higher education; (2) meeting students' special needs; (3) student progress through college; (4) student satisfaction; (5) workforce development and success; (6) transfer preparation and success; and (7) community support. Figures are provided for each topic and include: (1) 30% of Broome County high school graduates enrolled at BCC in 2000; (2) 35% of students are 17, 18, or 19 years old; (3) in the fall 1999 semester, 89% of ESL course grades were "C" or better; (4) 35% of BCC students graduate by the end of 4 years; and (5) in 2000, 865 degrees were awarded. (Contains numerous tables and graphs pertaining to the above listed key areas.) (NB)



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INDICATORS OF INSTITUTIONAL EFFECTIVENESS FOR BROOME COMMUNITY COLLEGE

By

Richard Romano

Working Paper Series
No. 2-01

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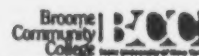
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BCC INDICATORS OF INSTITUTIONAL EFFECTIVENESS

In the fall of 1998, Broome Community College began the process of examining its mission in light of its re-accreditation review by the Middle States Association of Colleges and Schools. In its Self-Study Report submitted to Middle States in January 2000, the college committed itself to developing a set of core indicators which would measure how well it was doing in a number of key areas. In keeping with methods employed on a national level, the college used as a guide a publication from the American Association of Community Colleges (AACC) entitled Core Indicators of Institutional Effectiveness for Community Colleges.

The indicators presented here represent an expanded version of those recommended by the AACC. However, this report card is very much a work in progress. While incomplete, it does reflect the best data available at this time. We expect that the next report, scheduled for release in three years, will contain a more comprehensive set of measures.

This report card is tied to the mission statement of the college and is organized around the following major topics:

- Access to Higher Education
- Meeting Students' Special Needs
- Student Progress through the College
- Student Satisfaction
- Workforce Development and Success
- Transfer Preparation and Success
- Community Support

Richard Romano
Director

Spring 2001

INDICATORS OF INSTITUTIONAL EFFECTIVENESS FOR BROOME COMMUNITY COLLEGE

Broome Community College, a two-year unit of the State University of New York, is an open admission college designed to serve the educational needs of the local community and its citizens.

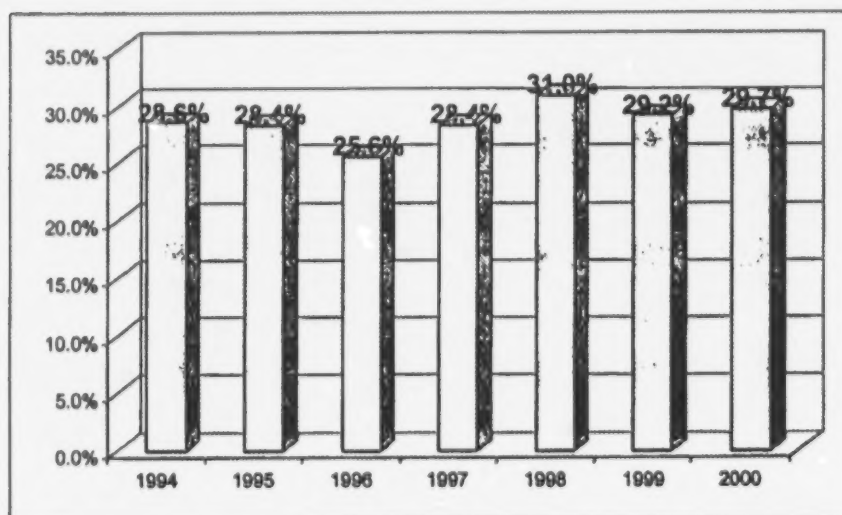
Access to Higher Education

Central to the mission of Broome Community College is open access to higher education, not only for local high school graduates but also for groups that have traditionally been denied access in the past. The following indicators are measures of how well we are doing in this area.

Access for Local High School Graduates

As a full-opportunity community college, BCC is required to admit all recent local high school graduates who have the ability to benefit from our programs. No statewide data exists for this measure but we know that **BCC is among the leaders in this category.**

Percentage of Broome County High School Graduates who enroll at BCC (Fall Semesters 1994-2000)

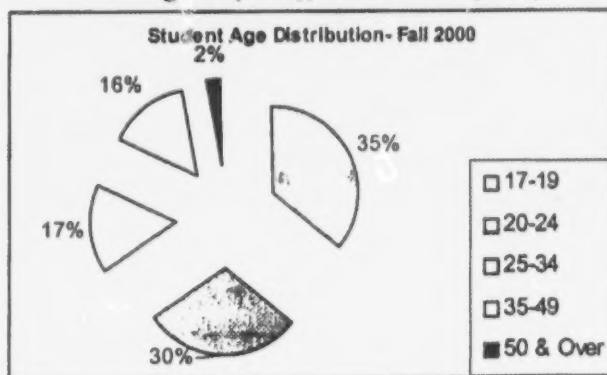


Over the past 25 years BCC has consistently attracted around 30 % of the recent high school graduates of Broome County. For the entering fall 2000 class, 76% of these students indicated that BCC was their first choice college. This exceeds the national average for both 2-year colleges (66.9%) and 4-year colleges (69.6%).

Access for Adults

Older students want access to higher education but are often unable to leave the area because of family and work responsibilities. Community colleges offer these students an opportunity to go to college by having a large number of classes in the evenings or on weekends and by using flexible modes of instruction. Because of this, community colleges traditionally have an older student population than 4-year colleges. BCC is similar to other community colleges in this respect. For fall 2000 semester 35% of our students were 25 or older. Most of these students are working adults who can't leave the area to attend college.

Age Distribution of BCC Students – Fall 2000
under age 25 (65%); 25 and over (35%)

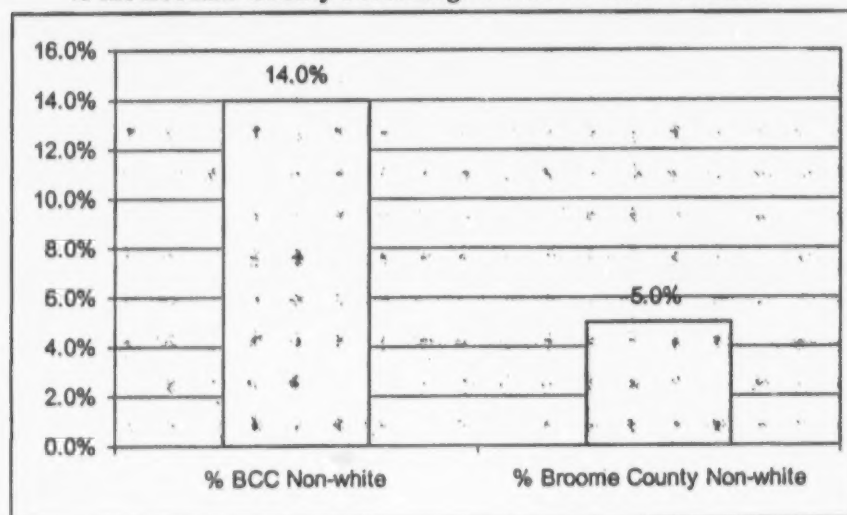


For the fall 2000 semester the average age of full-time students was 25, for part-time students it was 31, and overall it was 28 years old.

Access for Minorities

Since community colleges exist to service their local areas, their student populations typically reflect the ethnic characteristics of the local area. Census data for Broome County shows that only 5% of the population identify themselves as something other than white/Caucasian. As a result of our effort to recruit minority and international students the BCC campus is 2.8 times more diversified than that of the local area.

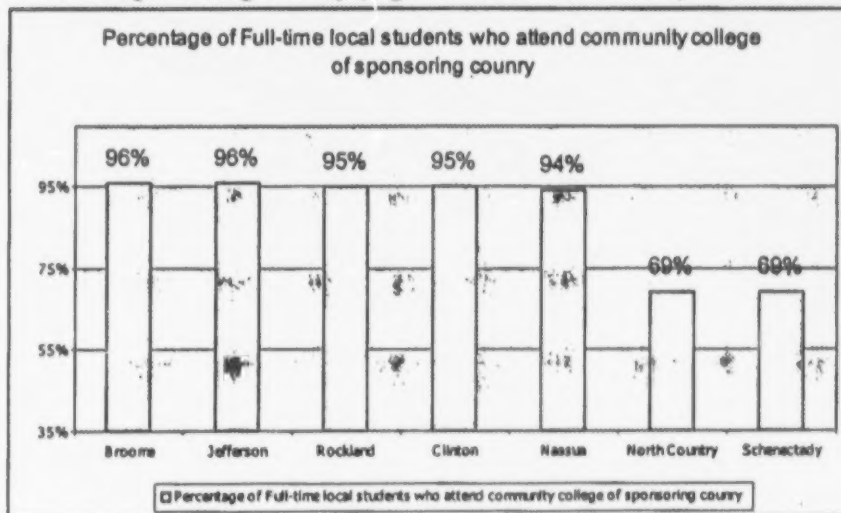
**Percentage of BCC Students Who Identify Themselves as non-White
vs the Broome County Percentage of non-Whites –Fall 2000**



Access for Broome County Residents

BCC provides a wide range of program choices for the residents of Broome County. Reports from a statewide database released by SUNY show that 96% of the students who attend a 2-year college in Broome County enroll at BCC. BCC is tied for first place in New York State for this measure of access.

Percentage of Full-time Local Students Who Attend the Community College of the Sponsoring County (highest and lowest in NYS) –Fall 1999



Out of this group, for the fall 2000 entering class, 49% indicated that they were first generation college students.

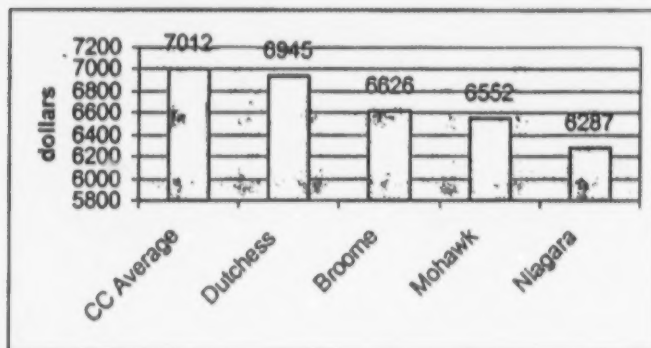
Access Through Affordability

High tuition and fees are a barrier to access. New York is a high tuition state where the average yearly in-state tuition for community colleges is \$2427 compared with a national average of \$1245. These differences are a reflection of different levels of state and local support. In spite of this, BCC seeks to keep the "sticker price" of attending as low as possible by controlling operating costs. The net cost to the most needy students is reduced by financial aid. The measures below show how we are doing.

Controlling Costs

Total operating costs depend upon a large number of things including the size of the college, the nature of the programs offered and salary rates. With such a wide variety of institutions within the SUNY system it seems appropriate to compare BCC with institutions of comparable size and location (peer colleges). In financial matters BCC is often grouped with Mohawk Valley, Niagara, and Dutchess. These peer colleges are similar in FTE enrollments and the nature of their location.

**Net Operating Costs per FTE
for SUNY Community Colleges (1999-2000)**

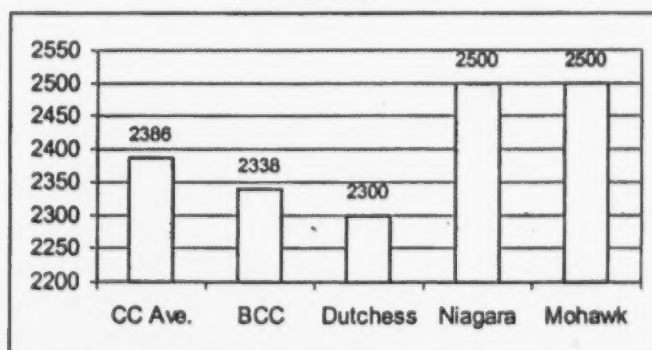


Net operating costs per FTE at Broome are lower than the SUNY community college average but higher than 2 out of 3 of our peer colleges. Comparing us with the SUNY average is not appropriate because the average is inflated by the high living costs in metropolitan areas close to New York City. In turn, BCC's costs are higher than some of our peer colleges because we have a greater number of high cost programs in the technologies and health sciences. According to a recent SUNY report BCC has the third highest percentage of its enrollments in these high cost programs. Only Hudson Valley and Erie are higher. Because of our program mix, average class sizes at BCC are smaller than those at our peer colleges. This is necessary to meet accreditation standards for quality and is reflected in lower than average student faculty ratios. For BCC the student/faculty ratio is 14.9:1. For our peers it is: Mohawk— 16.1, Dutchess—19.6, Niagara—20.2. In spite of this, as a result of tight budgetary management, BCC's net operating costs per FTE have increased over the last five years at a rate that is lower than half of the thirty SUNY community colleges and 19% less than the average.

Tuition Costs

BCC has consistently kept its tuition rate below the SUNY community college average and lower than 2 out of 3 of our peer colleges. Tuition charges for 1999-2000 are presented below as a typical example of these differences.

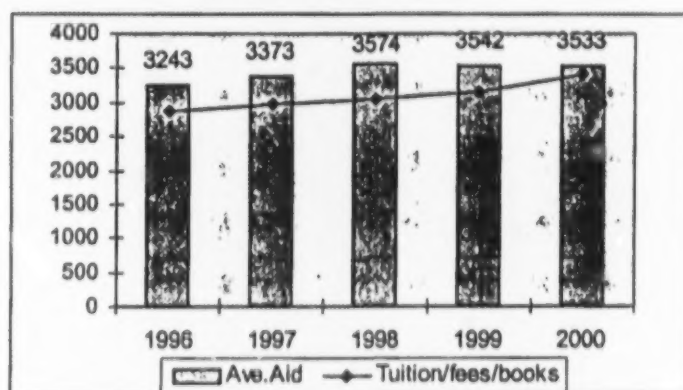
**BCC Tuition Costs vs SUNY Peer Colleges
(1999-2000)**



Financial Aid Improves Access

The high cost of tuition in New York State is mitigated by a generous tuition assistance plan offered by the state to the neediest students. Both full-time and part-time students are eligible for financial aid in the form of either grants or loans from the federal or state government or the BCC Foundation. Grants are awards that generally do not have to be paid back; loans must be repaid. Studies show that 80% of matriculated students at BCC receive some form of financial aid. For the neediest group, access to the college is assured by a financial aid package that pays not only for tuition but also for a certain amount of living expenses. As the chart below shows, when all financial aid is considered the average financial aid package at BCC exceeds the yearly cost of tuition, fees and books.

**BCC Tuition, Fees and Book Costs
vs Average Financial Aid Package (1996-2000)**
(thousands dollars)



In the 1999-2000 academic year 1823 out of our 4112 FTE's (or 44.4%), received grants that did not have to be repaid covering the full cost of their tuition and fees for a year.

Meeting Students' Special Needs

In addition to its other missions, community colleges are a point of entry to higher education for students with limited academic preparation and/or limited English language skills. As a full opportunity college, Broome is committed to providing remediation in the areas of reading, English, mathematics and science to students who are deficient in those areas. Additional preparatory work in English is also offered through an English-as-a-second language (ESL) program. The ESL program offers developmental work in writing, reading, and speaking English, so that students with little or no knowledge of English can develop the necessary skills to do college level work. The following measures indicate how well we are doing in these areas. Some of the data is for the fall 1994 entering class, which is the most recent year available for statewide comparisons.

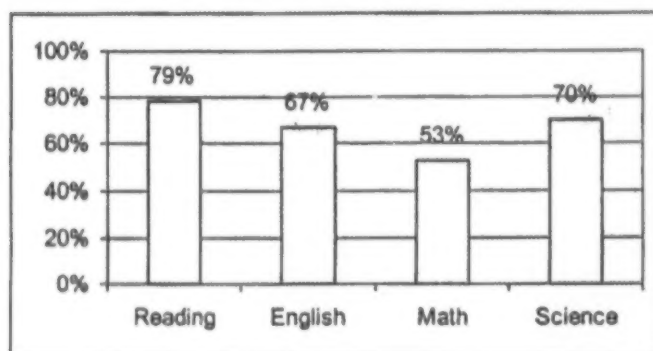
Developmental Studies

All first-time students (both full-time and part-time) who apply to the college are required to take a placement test to assess their ability in reading, writing and mathematics. Students found to be deficient in any of these basic skills are advised to remediate them before taking a full load of college level courses. Community colleges typically enroll a high percentage of these high-risk students, and levels of success are usually below those of the more academically prepared students. Nationally about 40-50% of first-time students are judged to be underprepared and enroll in at least one remedial course. **In the fall 1999 semester 1218 students entered BCC as first-time matriculated students. Of this group, 36% required remediation in one or more basic skills.** This is lower than the national average but since cut-off scores for placement in remedial courses vary widely, comparisons are difficult to make.

Success in Remedial Courses

Students have more difficulty passing remedial courses in math and English than they do in reading and science. Overall 60.8% of grades given in all remedial courses in the fall 1999 semester were C or better (a grade of D is passing). **These percentages are in line with national averages.**

Percentage of Students with Grades of C or better in Remedial Courses-- Fall 1999

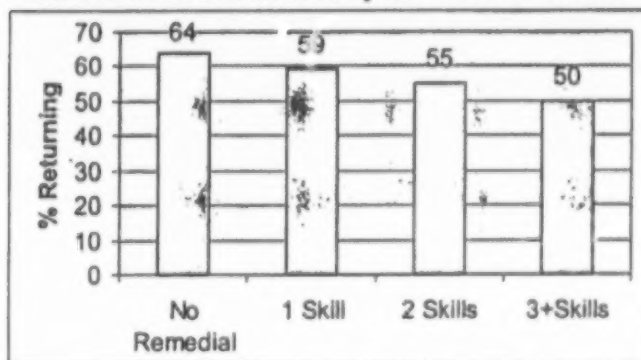


Once deficiencies are remediated, students are better able to succeed in college level courses. Success is measured by their performance in these courses (as reflected in GPA), their persistence rates (fall to fall) and in their graduation rates.

Persistence Rates (fall to fall)

Persistence rates for remedial students were measured by looking at the first-time matriculated students who entered in the fall 1999 semester, on either a full time or part-time basis, and were still enrolled one year later (fall 2000). The total number of students in this group was 1218 and 61% of them were enrolled for at least one credit in the fall 2000 semester. As the statistics below show, those students who required no remedial work persisted at a somewhat higher rate than those who needed remediation in one or more skill.

**Percentage of First-Time Students Enrolled in Fall 1999
Who Returned in Fall 2000 by Level of Remediation**

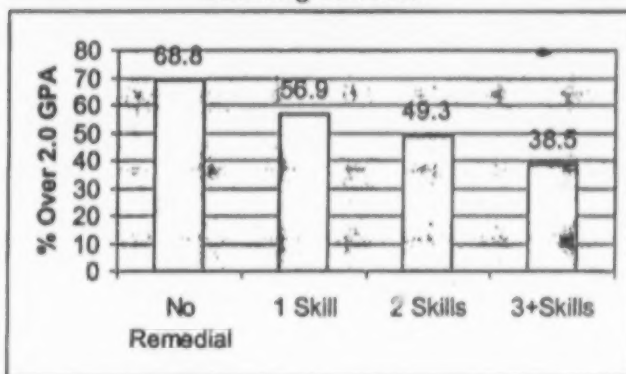


Students leave the college when they don't succeed academically. The average GPA of the non-persisters in the group above was 1.41 but for those who needed remediation in 3 or more (3+) skills it was .96. Persisters on the other hand had a 2.68 GPA after one year.

Success in College Level Courses

Courses taken for remedial credit are below the college level and do not count in the student's grade point average (GPA). By succeeding in remedial courses students not only overcome deficiencies but may also become more confident about succeeding in college level courses. If we had a 100% success rate, students who needed remedial work would achieve at the same level as those who needed no remedial work. We have not arrived at that level yet.

**Percentage of Students with GPA of 2.0 or higher after
one year in College Level Courses by Level of Remediation
Entering Fall 1999**

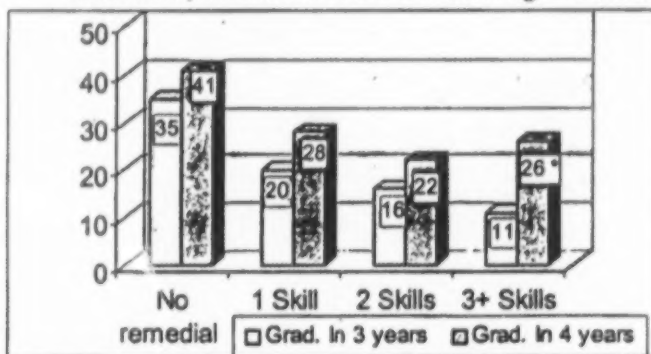


For students entering in fall '99, in the non-remedial group of 743 students, 511 (68.8%) had a GPA of 2.0 or higher after one year.

Graduation Rates of Remedial Students

The graph below shows the graduation rates for first-time, full-time matriculated students who entered BCC in the fall 1994 semester. In that semester, 1001 students were in that cohort and 41.3% enrolled in one or more remedial course their first semester. The rest, 58.7%, took no remedial courses. A finer breakdown shows that 28.6% of the entering students were deficient in one skill area, 9.2% were deficient in 2 areas and 3.5% were deficient in 3 or more skills. As the table below shows, graduation rates for the non-remedial group were significantly higher than for the remedial groups.

**Graduation Rates for Students Deficient in One or More Skills
First-time, Full-time Students Entering in Fall 1994 (%)**



*This percentage is highly variable because of the small number of students involved. For the fall of 1996 only 3% of this group graduated in 3 years and 10% in 4 years, which is the range more typical for students with three or more deficiencies.

As the statistics on remediation suggest, students with one or two deficient skills have a reasonable chance of correcting them and succeeding. Students with three or more deficiencies have much lower GPA's, persistence and graduation rates.

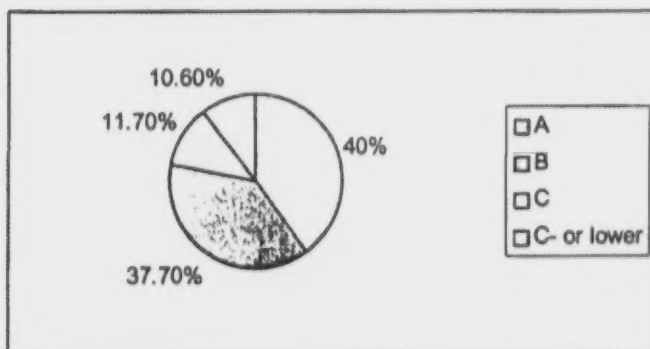
English-as-a-Second Language

Throughout its history Broome County and the surrounding region has been an important magnet for immigrants. In the early part of the last century they came from Italy and Eastern Europe and at the end of the century from Russia, Eastern Europe and Asia. Good English language skills are a necessary component of becoming a full and productive member of American society. BCC offers ESL courses at five levels in reading, writing and speaking, to provide these students with an appropriate foundation for college level work. In addition, our extensive ESL program serves a growing number of international students who assist us in diversifying the campus. Students in the ESL Program are often highly motivated and have the ability to succeed if they can acquire the necessary language skills. At BCC they rate above the college average in grades and in graduation rates.

Success in ESL Courses

In the fall 1999 semester, out of the 257 grades given in ESL courses, 89.4% were C or better.

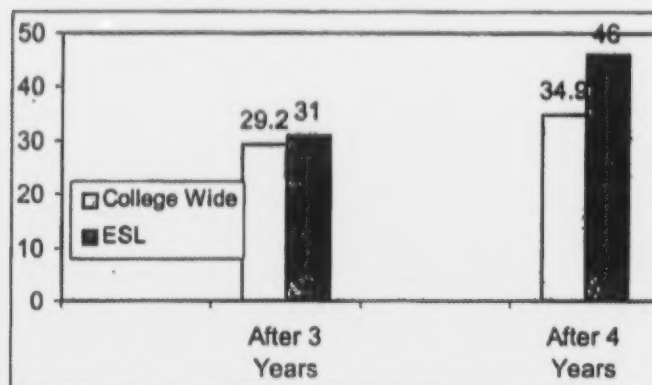
Grade Distribution in ESL Courses—Fall 1999



Graduation Rates of ESL Students

Once English language skills are mastered, students are better able to succeed in regular college credit courses. The graph below shows the comparative graduation rates for the first-time, full-time matriculated students who entered in the fall 1994. **ESL students often take an extra semester or two but their success is reflected in graduation rates which are higher than the college-wide average.**

**Graduation Rates of ESL Students vs College Average
First-time, Full-time Students Entering in Fall 1994**



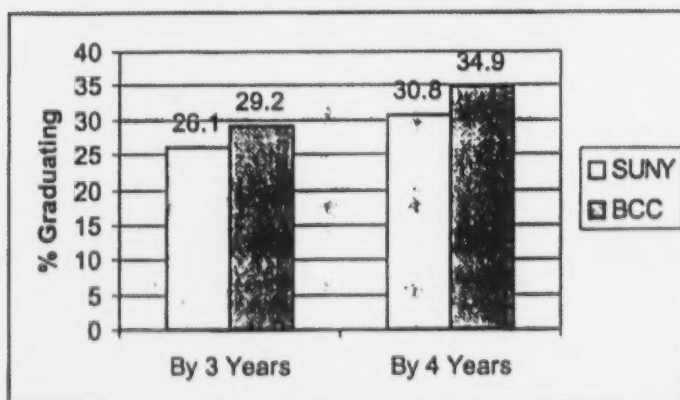
STUDENT PROGRESS THROUGH THE COLLEGE

This set of indicators is another way to show how well Broome is meeting the educational needs of its students. The most traditional single measure of success in this area is the number of degrees the college gives. However, such a measure is more appropriate for 4-year colleges than for community colleges where we know that many students do not attend for the purpose of completing a degree. A more appropriate measure would be whether students completed their program of study. Program completion might be as simple as completing a computer course or a cluster of courses to upgrade job skills or to learn English. A recent study done by the U.S. Department of Education that followed students for an 11-year period found that program completion at the community college level was at least as high as that at 4-year colleges, approaching the 90% level. Recognizing this, the SUNY system has just instituted an entering student goal survey, the results of which will not be available for several years. In the meantime, we present here the more traditional indicators of performance in this area.

College-wide Graduation Rates

The most recent statewide data available is for the entering class of fall 1994. For comparative purposes, SUNY looks at graduation rates for 3 and 4 years for first-time, full-time students. Looking at this measure of success, BCC's graduation rates are typically above the SUNY community college average.

**Graduation Rates for First-time, Full-time Students— Fall 1994
vs SUNY Community College Average**

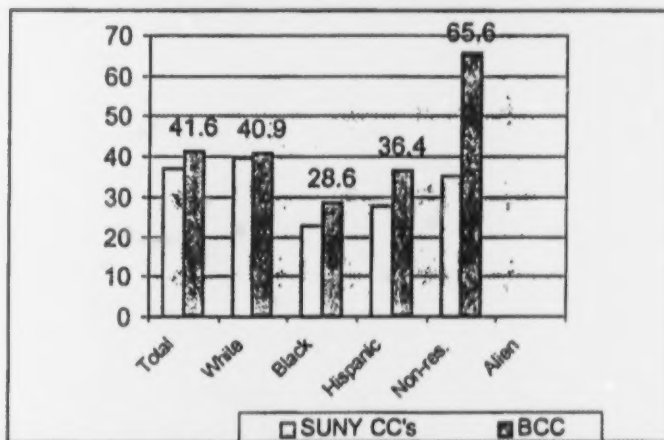


Retention Rates

Retention Rates by Ethnic Group

Aside from graduation rates, SUNY measures student progress by calculating the retention and attrition rates for each campus. Here retention is defined as getting a degree or certificate or being still enrolled at the same college. The latest figures for the entering class of fall 1994 are presented in the graph below. It shows the persistence of BCC students compared to the SUNY community college average by ethnic groups. BCC is consistently above the statewide average for this measure of success.

**SUNY Retention Rates vs BCC Rates for First-time, Full-time Students
Fall 1994 (as of fall 1998). BCC rates shown**

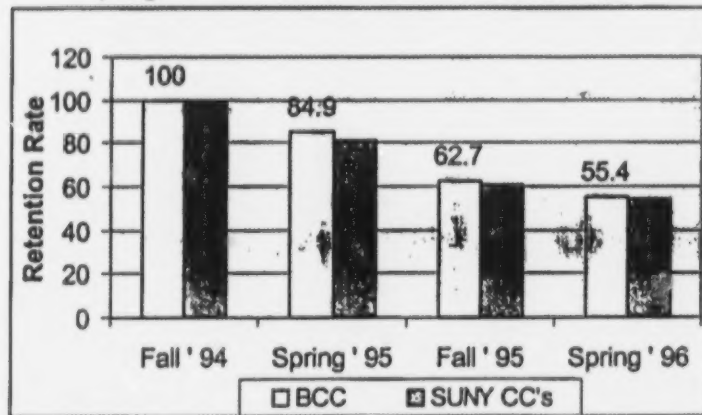


Includes students who graduate or are still enrolled. Rates do not include students who transfer before getting a degree or students who enter with no intention of getting a degree. Success rates would be much higher if these factors were considered.

Retention Rates Over Time

Another major indicator of success looks at how well the college holds on to its students by following a cohort of entering students for several semesters. Successful students usually stay but we know that success might not always mean getting a degree or staying beyond one semester. Again, current measures of success used by SUNY do not consider these factors. However, using current measures, BCC is somewhat higher than the SUNY average. Also, on this measure BCC consistently exceeds national averages (fall to fall) by 10-15%.

**Retention Rates for Fall 1994 First-time Full-time Students
BCC vs SUNY Community College Average (BCC % shown)
(Single cohort followed for three semesters)**



As the figures in this section on Student Progress show, looking at the traditional performance indicators that SUNY requires us to use for comparative purposes, BCC exceeds the state-wide averages for retention and graduation rates. However, we continue to maintain that many of these measures are less meaningful for community colleges than they are for 4-year colleges. Students use the community college in different ways and the attendance patterns at 4-year colleges have also changed. U.S. Department of Education studies show that 60% of undergraduates attend more than one college. At Broome we estimate that 40% of those who enter do not intend to complete a degree or plan to transfer before they complete a degree. For example, some may simply be testing their tolerance for higher education before they move on. Still others may be taking one course for the summer while they are home or may be taking a cluster of courses to learn a job-related skill. In this highly mobile student population, BCC is an important asset to the local community in this higher education "swirl" of students and the traditional measures of success do not capture all of its roles.

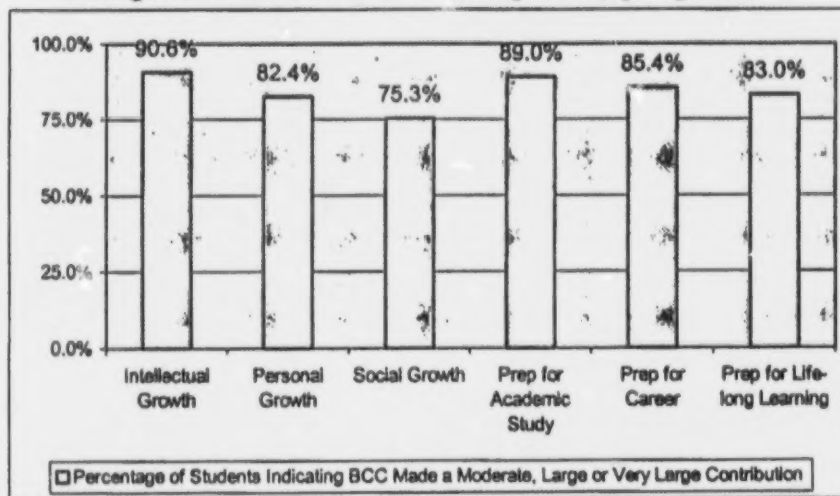
Student Satisfaction

Broome Community College recognizes the importance of meeting the needs of its students and the employers that hire those students or contract with the college for training. Asking the constituencies served by both our credit and our non-credit programs how well we are doing is another way of measuring our performance.

Credit Programs

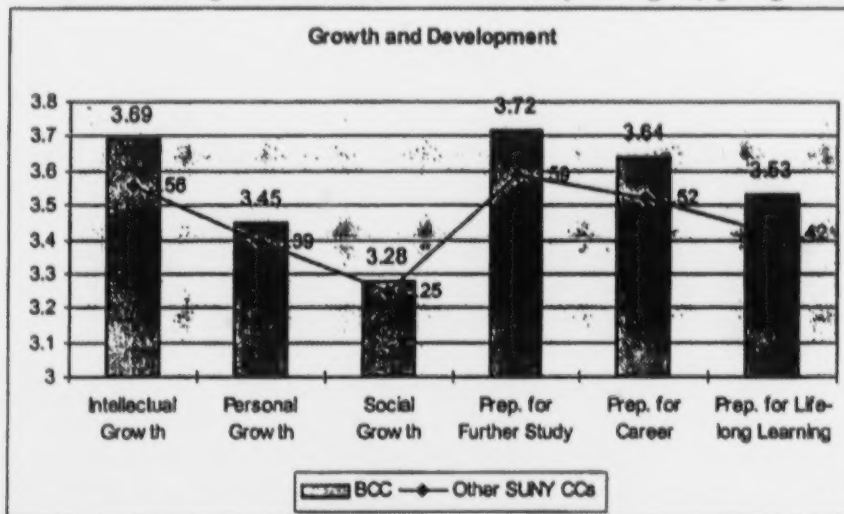
For our credit programs, SUNY conducts a Student Opinion Survey of currently enrolled students on all campuses every three years. The survey is administered and scored by the American College Testing Service (ACT). The illustrations below are the summary statements used by SUNY to rate all of its colleges. The most recent report, released in fall 2000, shows that BCC is among the five most highly rated out of the 30 community colleges surveyed.

Percentage of Students Indicating that BCC Made a Moderate, Large or Very Large Contribution to Their Development (Spring 2000)



In comparison with other 2-year colleges in the SUNY system BCC is above average in all of these categories. The graph below shows these figures.

**Student Ratings of the College's Impact on their Growth and Development
BCC vs Average of Other SUNY Community Colleges (Spring 2000)**

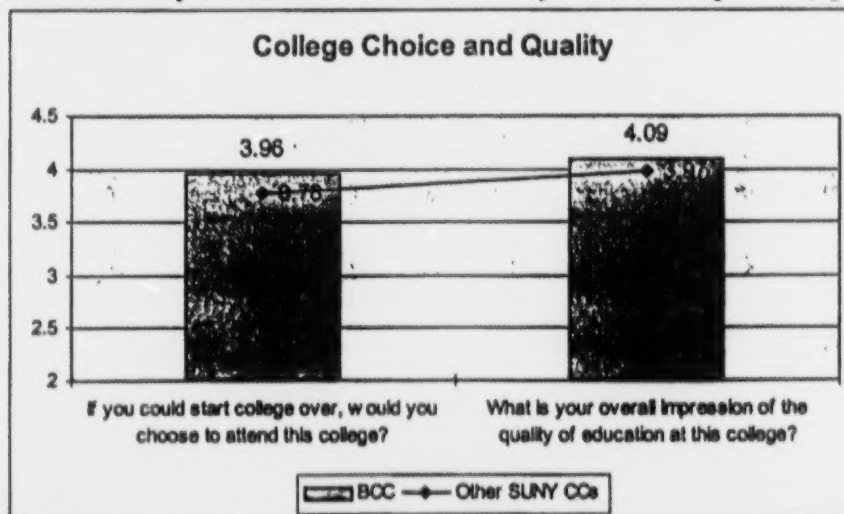


Averages are based on a 5-point Likert Scale: 5= very large, 4= large, 3= moderate, 2=small, 1= none

The level of student satisfaction at BCC outranks the average of all other SUNY 2-year and 4-year colleges in all six summary categories.

At the end of the ACT survey, students are asked to rate their college in two summary questions. On these questions the level of student satisfaction with BCC outranks the average of all other 2-year and 4-year colleges in the SUNY system.

Final Summary Statements from ACT Survey of Student Opinion (Spring 2000)



Responses are based on a 5-point Likert Scale: For the college choice question, 5= definitely yes, 4= probably yes, 3= uncertain, 2= probably no, 1= definitely no. For the overall quality question, 5= excellent, 4= good, 3= average, 2= below average, 1= very inadequate.

Non-Credit/Contract Programs

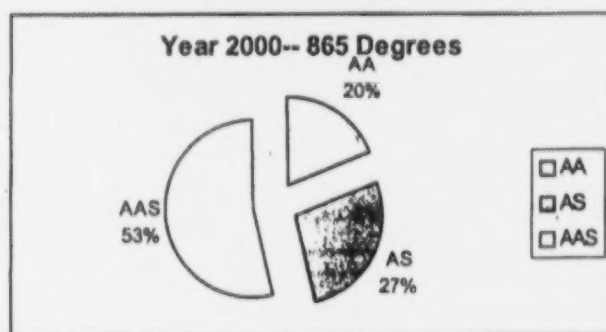
Non-credit courses are offered by The Center for Community Education and are self-financed; that is, they do not depend on state and local tax funding. Courses are of two general types: open enrollment and contracted corporate service training courses. Since the majority of these courses are considered workforce development activities, those key indicators of effectiveness are presented below in a separate section on Workforce Development and Success.

Workforce Development and Success

Credit Programs

The origins of Broome Community College, going back to 1946, are found in the development of programs that served local industries and prepared students directly for the workplace. This is still an important part of the mission of the college. The AAS degree programs are designed for students who expect to enter the workforce directly after graduating even though many of them transfer. Of the 44 degree programs offered by the college in 2000, 31 were AAS programs. While the transfer function of the college has grown tremendously since the 1960's, 53% of the 865 degrees awarded in 2000 were still AAS degrees. Of those who went to work, 78.7% report that they were employed in fields directly or indirectly related to their major.

Distribution of Degrees (2000)



AAS programs are found in all divisions of the college from Nursing in Health Science, to Office Administration in Business and Criminal Justice in Liberal Arts.

Licensing/Certification Success for Health Science Students

BCC has nine AAS programs in health science and three certificate programs. Less than 10 % of these graduates transfer directly after getting a degree from BCC. Many of those who go directly to work must pass a state or national licensing exam. The figures below show the percentage of BCC graduates that pass the licensing exam the first time they take it compared with state or national averages. Students who fail the exam the first time are almost always successful the next time they take it but first time statistics are the ones that are used nationally for comparative purposes. **For health science programs that require a license to practice, the average passing rate for BCC students over the past five years, for first time takers, exceeded the state or national average pass rates in all programs.**

Licensure Pass Rates for BCC Graduates - Most Recent Years

Program/Year	BCC Pass Rate (%)	State/National Pass Rate (%)	BCC % above + Or (below)
Nursing			
1995	96.4	87.8	+ 8.6
1996	90.2	85	+5.2
1997	71.8	83.4	(11.6)
1998	86	80.8	+5.2
1999	94.4	80.6	+13.8
Radiological Technology			
1995	95.5	90.6	+4.9
1996	100	91.3	+8.7
1997	93.3	89.5	+3.8
1998	100	90.5	+9.5
1999	100	90	+10.0
Dental Hygiene			
1995	100	96.5	+3.5
1996	93.1	97.7	(4.6)
1997	93.1	96.1	(3.0)
1998	92.1	92.3	(0.2)
1999	100	91.9	+8.1
Medical Laboratory Technology *			
1995	80	77	+3.0
1996	70	74	(4.0)
1997	63	74	(11.0)
1998	83	81	+2.0
1999	57	71	(14.0)
Medical Assistant			
1996	95	National	
1997	92	Scores	
1998	100	Not	
1999	100	Available	
2000	87		

* Many MLT graduates do not take the exam since it is not required for employment in New York State.

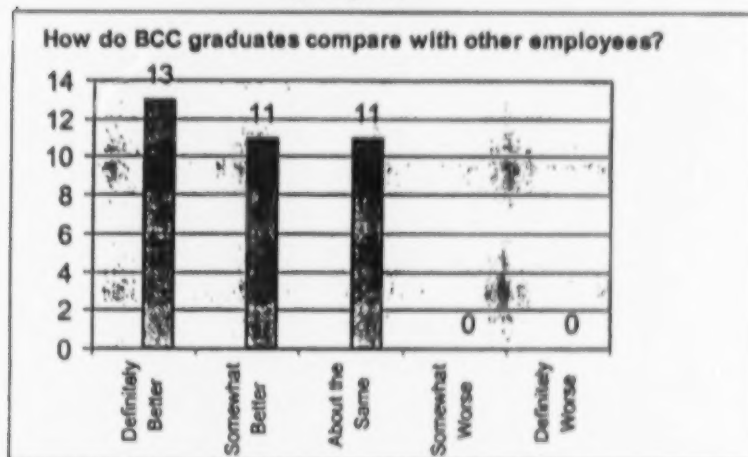
Student/Employer Satisfaction

A 1999 Alumni Survey conducted by ACT for the SUNY system asked students how well their college program prepared them for their current job. **On a scale of 1 to 5, BCC alumni gave the college a 4.41 rating, which was significantly higher than the average of the other 29 SUNY community colleges.**

Employers are also surveyed on a regular basis to determine the quality of BCC degree program graduates. Thirty-five of the top area employers responded to a survey for this report. Employers were asked "how the skill level and job performance of BCC graduates

compares with that of others in their company who have similar tasks but did not attend BCC." The results below indicate a high degree of satisfaction with BCC graduates.

Responses of 35 Area Employers of BCC Graduates Spring 2001



Non-Credit Programs

In addition to degree programs, BCC does a significant amount of workforce training through its Center for Community Education. Courses offered by the Center are of two general types: Open Enrollment Courses and Corporate Service Contract Courses. Contract courses may be for credit but most are not. They are usually delivered on site at the work place. Open enrollment courses are of two general types: personal enrichment (community service), or vocational/remedial. Over the last five years, 40% of the courses offered have been of the personal enrichment variety and 60% have been vocational in nature. It is the last group that qualifies as workforce training. Enrollment figures are shown below.